

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/094469 A1

(51) International Patent Classification⁷: **C07K 14/35,**
14/195

(21) International Application Number:
PCT/EP2004/004345

(22) International Filing Date: 23 April 2004 (23.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/464,644 23 April 2003 (23.04.2003) US

(71) Applicant (for all designated States except US): MAX-
PLANCK-GESELLSCHAFT ZUR FÖRDERUNG
DER WISSENSCHAFTEN E.V. [DE/DE]; Hofgarten-
strasse 8, 80539 München (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GRODE, Le-
ander [DE/DE]; Kieler Strasse 3, 10115 Berlin (DE).
KAUFMANN, Stefan, H., E. [DE/DE]; Am Rosenanger
57a, 13465 Berlin (DE). RAUPACH, Bärbel [DE/DE];
Willdenowstrasse 10, 12203 Berlin (DE). HESS, Jürgen
[DE/DE]; Wellerstädter Hauptstrasse 4, 91083, Baiersdorf
(DE).

(74) Agent: WEICKMANN & WEICKMANN; Postfach 860
820, 81635 München (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: TUBERCULOSIS VACCINE WITH IMPROVED EFFICACY

(57) Abstract: The present invention relates to novel recombinant vaccines providing protective immunity against tuberculosis. Further, the present invention refers to novel recombinant nucleic acid molecules, vectors containing said nucleic acid molecules, cells transformed with said nucleic acid molecules and polypeptides encoded by said nucleic acid molecules.



WO 2004/094469 A1